CLAIMS

What is claimed is:

1. A chimeric peptide comprising an opioid receptor binding moiety and a nociceptive receptor binding moiety.

2. The peptide of claim 1, wherein said peptide induces analgesia when administered to a mammal.

3. The peptide of claim 1, wherein said opioid receptor binding moiety binds to an opioid receptor selected from the group consisting of the μ receptor, the δ receptor and the κ receptor.

4. The peptide of claim 3, wherein the opioid receptor is the μ receptor.

5. The peptide of claim 4, wherein the nociceptive receptor is the NK_1 receptor.

6. The peptide of claim 1, wherein said peptide comprises is a plurality of opioid receptor binding moieties.

7. The peptide of claim 1, wherein said peptide comprises a plurality of nociceptive receptor binding moieties.

8. The peptide of claim 6, wherein said peptide comprises a plurality of nociceptive receptor binding moieties.

9. The peptide of claim 1, wherein the opioid receptor binding moiety is selected from the group consisting of SEQ ID NOs: 1-20 and 44.

10. The peptide of claim 1, wherein the nociceptive receptor binding moiety is selected from the group consisting of SEQ ID NOs: 21-40 and 41.

11. The peptide of claim 6, wherein the plurality of opioid receptor binding moieties is selected from the group consisting of SEQ ID NOs: 1-20 and 21.

12. The peptide of claim 7, wherein the plurality of nociceptive receptor binding moieties is selected from the group consisting of SEQ ID NOs: 21-40 and 41.

13. The peptide of claim 1, wherein the nociceptive moiety is selected from the group consisting of Substance P, Substance P fragments, and Substance P derivatives.

14. The peptide of claim 1, wherein said peptide comprises a D-amino acid.

15. The peptide of claim 5, wherein the opioid receptor binding moiety is selected from the group consisting of endomorphin 1 and endomorphin 2 and the nociceptive receptor binding moiety is a fragment of Substance P.

16. A pharmaceutical composition comprising the peptide of claim 1 and a pharmaceutically acceptable diluent.

17. The pharmaceutical composition of claim 16, further comprising an adjuvant.

18. A method of treating pain in a mammal, said method comprising administering to said mammal a peptide comprising an opioid receptor binding moiety and a nociceptive receptor binding moiety in an amount sufficient to induce analgesia in said mammal.

19. The method of claim 18, wherein said opioid receptor binding moiety binds to an opioid receptor selected from the group consisting of the μ, δ and κ receptors.

20. The method of claim 18, wherein the nociceptive receptor binding moiety binds to NK_1.

21. The method of claim 18, wherein the method of administration is selected from the group consisting of intrathecal administration, intracerebroventricular administration and systemic administration.

22. The method of claim 18, wherein the peptide is administered with a solubilizing agent.

23. The method of claim 22, wherein the solubilizing agent is cyclodextran.